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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALICE YVONNE ROMANS-HESS,
JASON MATTHEW ENGLISH and JIAN QIN

Appeal 2009-003618
Application 10/684,181
Technology Center 3700

Decided: September 23, 2009

Before JAMESON LEE, RICHARD TORCZON, and MICHAEL P. TIERNEY, *Administrative Patent Judges*.

TIERNEY, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

This is a decision on appeal by the real party in interest, Kimberly-Clark Worldwide, Inc., under 35 U.S.C. § 134(a) (2002) from a final rejection of claims 1-4, 6-10, 12-20, and 22-28. Claims 5, 11, 21, and 29 were cancelled prior to this appeal. (App. Br. 1). Appellants request reversal of the Examiner's rejection of claims 1-4, 6-10, 12-20, and 22-28. We have jurisdiction under 35 U.S.C. § 6(b) (2008). We affirm.

Reference Relied on by the Examiner

Everett	6,437,214 B1	Aug. 20, 2002

The Rejections on Appeal

The Examiner rejected claims 1-4, 6-10, 12-16, 22-24, and 27 under 35 U.S.C. § 102(b) as anticipated by Everett. The Examiner rejected claims 17-20, 25, 26, and 28 under 35 U.S.C. § 103(a) as unpatentable over Everett.

Appellants present two sets of arguments. One set for the § 102(b) rejection of claims 1-4, 6-10, 12-16, 22-24, and 27, and another set of arguments for the § 103(a) rejection of claims 17-20, 25, 26, and 28. For reasons made apparent below, claim 1 is representative for both groups of claims.

The Invention

The invention relates to an absorbent article, such as a diaper or feminine product, for absorbing complex fluids. (Spec. ¶¶ [0001]-[0002]; App. Br. 14, Claims App'x.). The absorbent article comprises an absorbent structure and "flake" superabsorbent particles. (*Id.*). Claim 1[1] is illustrative of the claimed invention and is reproduced below:

> 1. An absorbent article for absorbing a complex fluid comprising
>
> an absorbent structure and
>
> superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents and have an average surface area to volume ratio of at least about 0.05 μm^{-1}, an average thickness of no more than about 40 micrometers, and a particle size distribution of from about 100 micrometers to about 850 micrometers.

(App. Br. 14, Claims App'x.).

B. ISSUE

Have Appellants shown that the Examiner incorrectly determined that Everett teaches flake superabsorbent particles that comprise at least about 5% by weight of the total weight of Everett's superabsorbent particles?

C. FINDINGS OF FACT

Appellants' Absorbent Article

1. The Specification for Appellants' absorbent article teaches that the term flake superabsorbent, as used by Appellants, encompasses superabsorbent particles that are flake shaped, ribbon shaped, or sheet-like. (Spec. ¶ [0024]).

2. Appellants' Specification states that "the intake speed and capacity of absorbent articles, such as feminine napkins, is significantly improved by utilizing a superabsorbent particle having a flake, ribbon, or sheet form and

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[1] Appellants should note that claim 1 has been indented pursuant to 37 C.F.R. § 1.75(i).

having a high average surface area to volume ratio." (Spec. ¶ [0021]).

3. Appellants' Specification and Appeal Brief state that Appellants' absorbent article has an improved rate of intake and capacity for complex fluids when "about 100% (by total weight of the superabsorbent particles) of flake superabsorbent particles," are utilized. (Spec. ¶ [0049]; App. Br. 5-6, "even more suitably").

Everett

4. Everett, like the present application on appeal, is owned by Kimberly-Clark Worldwide, Inc. (Everett, Front Page, "Assignee").

5. Everett teaches an absorbent article that may be used for, among other things, a diaper or feminine care article. (*Id.* at 4:26-32).

6. Everett's absorbent structure utilizes an absorbent core 30 comprising superabsorbents. (*Id.* at 7:43-50).

7. Everett teaches that the superabsorbents may be in the form of a plurality of discrete superabsorbent particles of any desired shape. (*Id.* at 15:31-45).

8. Specifically, Everett teaches that the shapes may comprise one of eight exemplary shapes including spiral, semi-spiral, cubic, rod-like, polyhedral, needle, flake, or fiber. (*Id.* at 15:31-45, 37:39-40).

9. Everett explicitly states that "[t]he superabsorbent morphology may be particulate, fibrous, flake-like or combinations thereof." (*Id.* at 37:39-40). From this, one of ordinary skill in the art would understand Everett teaches that flake-like particles may comprise 100% of the superabsorbent particles in light of Everett's teaching.

10. Everett directs one of ordinary skill in the art to the use of ribbon-like ("flake") shapes and teaches how to calculate their surface area. (*Id.* at

37:17-20).

11. Appellants acknowledge that Everett "list[s] flake shaped superabsorbent particles as two of eight different shapes their superabsorbent particles may have." (App. Br. 11).

D. PRINCIPLES OF LAW

We give claims their broadest reasonable interpretation consistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

A claim is anticipated under 35 U.S.C. § 102 when each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). Anticipation is found when a person of ordinary skill in the art can at once envisage each member of a limited class. *See In re Petering*, 301 F.2d 676, 681-82 (CCPA 1962) (holding that a prior art reference teaching a genus of 20 alternatives anticipates all species within the genus).

An invention is not patentable under 35 U.S.C. § 103 if it is obvious. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *Id.* at 416. Evidence of unexpected results or teaching away is relevant to the question of obviousness; however, such evidence is not relevant to the issue of anticipation. *In re Malagari*, 499 F.2d 1297, 1302 (CCPA 1974).

E. ANALYSIS

The Examiner rejected claims 1-4, 6-10, 12-16, 22-24, and 27 under 35 U.S.C. § 102(b) as anticipated by Everett. Appellants argue the patentability of claim 1 as to anticipation, but do not provide separate arguments for claims 2-4, 6-10, 12-16, 22-24, and 27.

The Examiner also rejected claims 17-20, 25-26, and 28 under 35 U.S.C. § 103(a) as obvious over Everett. Appellants contend that these claims are non-obvious and provide reasons that claim 1 is unobvious over Everett. Accordingly, provided below is an analysis of Appellants' contentions with respect to anticipation and obviousness as to claim 1.

The Anticipation Rejection Under § 102(b)

The Examiner found that Everett anticipated claims 1-4, 6-10, 12-16, 22-24, and 27. (Ans. 3). Specifically, the Examiner found that Everett disclosed that "at least about 5% (by weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents." (*Id.*).

Appellants contend that Everett does not anticipate the claims because the reference fails to teach the above "at least about 5%" claim limitation. (App. Br. 4-7, Reply Br. 1-3). Appellants further contend that claim 1 is novel as Appellants have "surprisingly discovered" that using the claimed amount of flake superabsorbents yields "an improved rate of intake and capacity for complex fluids." (App. Br. 5-6).

Claim Construction for "at least about 5%" Flake

We give claims their broadest reasonable interpretation consistent with the specification. *Zletz*, 893 F.2d at 321. Appellants' claims require "superabsorbent particles wherein at least about 5% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents." (App. Br. 14, Claims App'x.). The plain and ordinary meaning of the language "at least about 5%" encompasses 100% flake superabsorbent particles.

Appellants' Specification and Appeal Brief are consistent with the plain and ordinary meaning of the claim language, as they state that absorbent articles have an improved rate of intake and capacity for complex fluids when "about 100% (by total weight of the superabsorbent particles) of flake superabsorbent particles," are utilized. (Spec. ¶ [0049]; App. Br. 5-6, "even more suitably"). Thus, Appellants' Specification contemplates that the claimed invention encompasses absorbent articles having only flake superabsorbent particles.

Accordingly, we hold that an absorbent article having superabsorbent particles that consists of flake superabsorbents would meet Appellants' claims, i.e. an absorbent article wherein 100% (by total weight of the superabsorbent particles) of the superabsorbent particles are flake superabsorbents. We determine below whether Everett teaches an absorbent article having 100% flake shaped superabsorbent particles.

Everett Describes the Use of 100% Flake Superabsorbent Particles

Everett teaches an absorbent article that may be used for, among other things, a diaper or feminine care article. (Everett 4:26-32). Everett's absorbent structure utilizes an absorbent core 30 comprising superabsorbents. (*Id.* at 7:49-50). Everett teaches both a broad and limited class of superabsorbents. Broadly, Everett discloses that the superabsorbents may be in the form of a plurality of discrete superabsorbent particles having any desired shape. (*Id.* at 15:31-45). Everett however substantially limits its broad disclosure of "any desired shape" by providing a limited class of eight exemplary shapes. Specifically, Everett provides that exemplary particle shapes include: spiral, semi-spiral, cubic, rod-like, polyhedral, needle, flake, or fiber. (*Id.*) With respect to ribbon-like ("flake-like")[2] particles, Everett even goes on to describe how to calculate their surface area. (*Id.* at 37:17-20). Appellants, who are also Everett's assignees, acknowledge that Everett "list[s] flake shaped superabsorbent particles as two of eight different shapes their superabsorbent particles may have." (App. Br. 1 and 11).

As to the percentage of flake employed, Everett explicitly states that "[t]he superabsorbent morphology may be particulate, fibrous, flake-like or combinations thereof." (Everett 37:39-40). From this, one of ordinary skill in the art would understand Everett teaches that flake-like particles may comprise 100% of the superabsorbent particles.

The Examiner found that the above teaching of a limited class anticipates the use of a plurality of discrete flake shaped superabsorbent particles. (Ans. 3 and 5 "specific forms, which include the flake form"). The relationship of Everett's teachings relative to Appellants' claims is analogous to the situation the Court of Customs and Patent Appeals addressed in *In re Petering*, 301 F.2d 676 (CCPA 1962). In *Petering*, the Court contrasted the effect of the disclosure of a broad generic class of compounds with the disclosure of a limited class of compounds (limited genus). *Id.* at 681. Specifically, the Court held that the disclosure of a broad class of compounds without more is not anticipatory; however, the Court held that the disclosure of a limited class of compounds anticipates all species within that limited genus when a person of ordinary skill in the art would "at once envisage each member" of the limited class. *Id.*

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[2] As mentioned above, Appellants' Specification defines "flake superabsorbents" as including superabsorbents that are flake shaped, ribbon shaped, or sheet-like. (Spec. ¶ [0024]).

We hold that one skilled in the art would clearly envisage each of the eight species explicitly named by Everett, especially in light of Everett's specific guidance with respect to calculating a ribbon-like particles ("flake") surface area and the explicit statement that the morphology may be "particulate, fibrous, flake-like or combinations thereof." Since the claims encompass prior art consisting entirely of flake shaped superabsorbents, Everett's description of 100% flake shaped superabsorbents anticipates the disputed limitation. Accordingly, Appellants have not shown that the Examiner incorrectly determined that Everett anticipates claims 1-4, 6-10, 12-16, 22-24, and 27.

Appellants' "Surprising Discovery" Contention is Not Relevant to Anticipation

Appellants contend that they have "surprisingly discovered" that using the claimed amount of flake superabsorbents yields "an improved rate of intake and capacity for complex fluids." (App. Br. 5-6). We understand Appellants' contention of surprising discovery to be analogous to a contention that the claimed invention yields unexpected results. Appellants' contention however is unpersuasive, because evidence of unexpected results is irrelevant to 35 U.S.C. § 102 rejections and thus cannot overcome a finding of anticipation. *In re Malagari*, 499 F.2d at 1302. Accordingly, Appellants have not overcome the Examiner's finding that claims 1-4, 6-10, 12-16, 22-24 and 27 are anticipated.

Although Appellants' Appeal Brief contends that the claimed invention was "surprisingly discovered" with respect to anticipation, we exercise our discretion and analyze Appellants' contention of surprising discovery with respect to the Examiner's obviousness rejection.

The Obviousness Rejection Under § 103(a)

The Examiner and Appellants dispute whether claims 17-20, 25-26 and 28 are obvious over Everett.[3] Appellants contend that Everett teaches away from using flake shaped superabsorbents by virtue of teaching embodiments that utilize superabsorbent particles having shapes other than flake (i.e. spherical). (App. Br. 11-12; Reply Br. 2-3). Additionally, as noted above, Appellants contend that the use of flake shaped superabsorbents achieves a surprising or unexpected result. (App. Br. 5).

Appellants Have Not Demonstrated That Using the Claimed Amount of Flake Superabsorbents Yields Unexpected Results

Appellants contend that their Specification demonstrates that the invention represents a surprising discovery and direct our attention to two portions of their Specification, page 8, paragraph 21 and page 20, paragraph 49. (*See* App. Br. 5-6). Paragraph 21, however, merely states that the use of flake form provides an improvement as compared to conventional absorbents and paragraph 49 is an unsupported statement that flakes improve the rate of intake and capacity for complex fluids.

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[3] The Examiner found that Everett explicitly taught all of the limitations of the claims except for (1) the specific surface area to volume ratio required by claims 17-18 and 25-26, and (2) the specific thickness required by claims 19-20 and 28. (Ans. 4-5). The Examiner determined that utilizing such features would have been obvious to one of ordinary skill in the art at the time of invention. (*Id.*). Appellants do not specifically contest the Examiner's determination regarding these particular limitations.

To establish unexpected results, at a minimum, the results must 1) be unexpected to one of ordinary skill in the art, 2) involve a comparison with the closest prior, and 3) be commensurate in scope with the claims. *In re Harris*, 409 F.3d 1339, 1343-44 (Fed. Cir. 2005).

Appellants have failed to direct our attention to credible evidence establishing that the purported "surprising" discovery was unexpected to one of ordinary skill in the art. (App. Br. 20, Evid. App'x. "None"). Appellants' statements in the Appeal Brief alleging the surprising result are unsupported attorney argument and are given no weight. Similarly, the purported unexpected results do not stem from a comparison with the closest prior art, Everett. Moreover, Appellants' have failed to establish that their surprising discovery is commensurate with the scope of the claims. We hold that Appellants' alleged rebuttal evidence is unpersuasive on the issue of obviousness.

Everett's Disclosure of Additional Superabsorbent Shapes Does Not Teach Away from the Use of Flake Superabsorbents

Appellants contend that Everett's teaching of examples utilizing superabsorbent particles having shapes other than flake teaches away from the use of flake shaped superabsorbent particles. (App. Br. 11-12; Reply Br. 2). Particularly, Appellants contend that Everett's teaching of spherical shaped particles and the low surface area to volume ratio taught by Everett's spherical superabsorbent particles teaches away from the use of flake shaped superabsorbents. (*Id.*).

It is well settled that the mere disclosure of alternative designs does not teach away from a combination, where such disclosure does not criticize, discredit, or otherwise discourage the solution claimed. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

Appellants have not shown how Everett's teaching of superabsorbent particles, having shapes other than flake (i.e. spherical), in any way criticizes, discredits, or otherwise discourages the use of flake superabsorbents. Thus, Appellants have failed to demonstrate how Everett teaches away from the use of flake shaped superabsorbent particles.

We hold that Appellants have failed to show that the Examiner incorrectly determined that it was obvious to utilize familiar elements (absorbent structures and flake superabsorbent particles) for their known purpose (absorbing fluids) to achieve a predictable result (formation of an absorbent article, e.g., a diaper).

F. CONCLUSION

Appellants have not shown that the Examiner incorrectly determined that Everett teaches flake superabsorbent particles that comprise at least about 5% by weight of the total weight of Everett's superabsorbent particles.

G. ORDER

The rejections of claims 1-4, 6-10, 12-16, 22-24, and 27 under 35 U.S.C. § 102(b) as anticipated by Everett are affirmed.

The rejections of claims 17-20, 25-26, and 28 under 35 U.S.C. § 103(a) as unpatentable over Everett are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

nhl

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